

Supplementary Information

β -lapachone suppresses tumour progression by inhibiting epithelial-to-mesenchymal transition in NQO1-positive breast cancers

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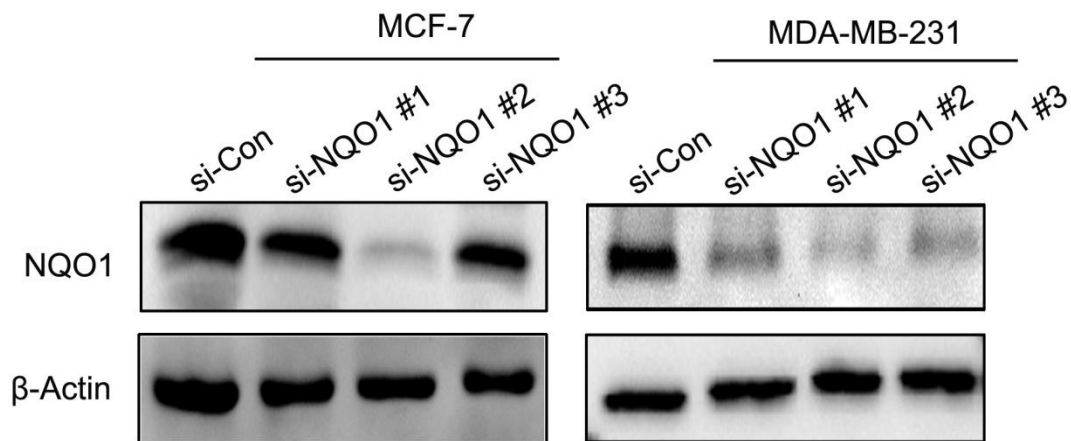
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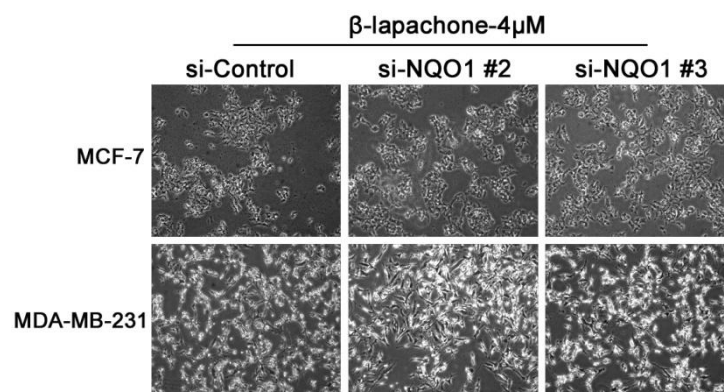
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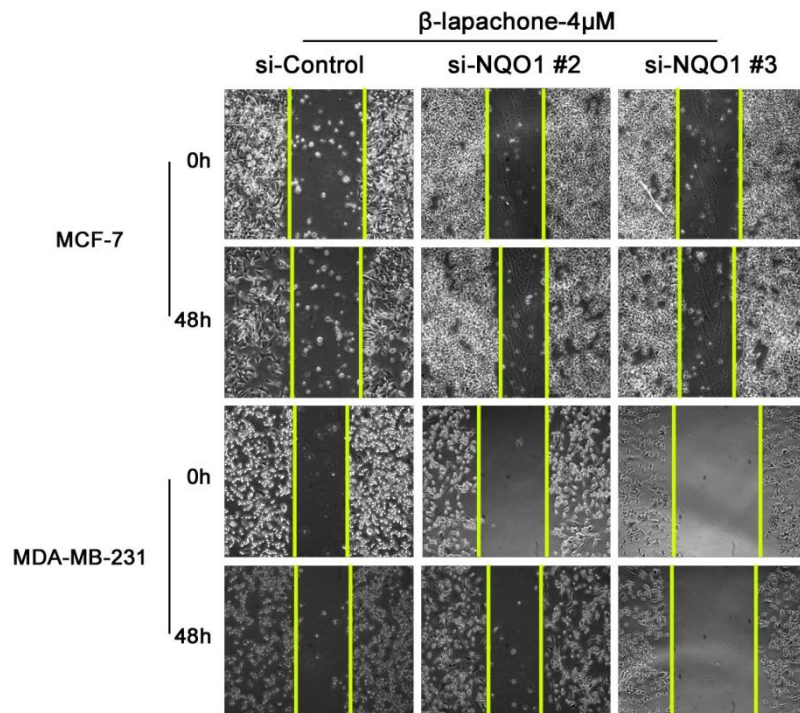
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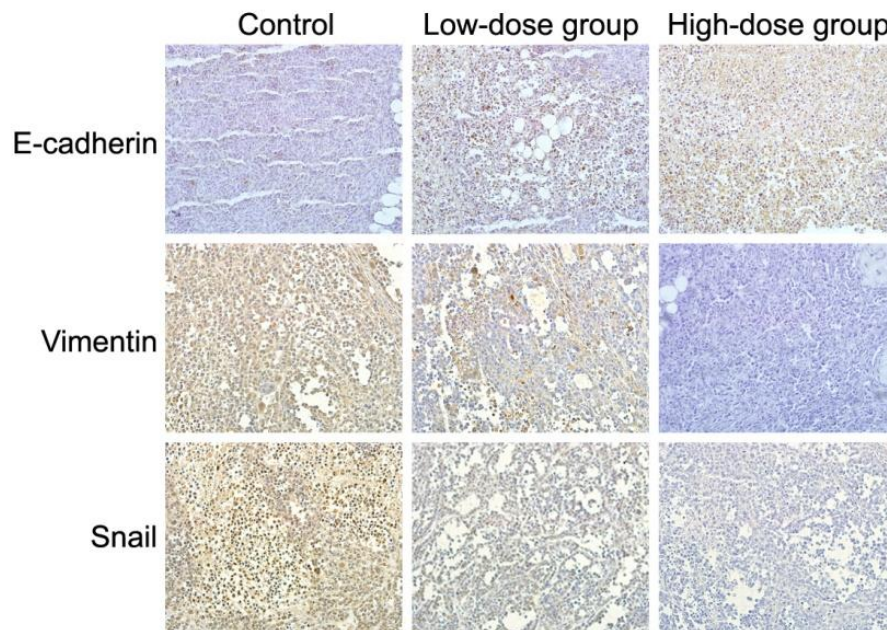
Supplementary Figure 1: NQO1 was knocked down by siRNA in breast cancer cells. NQO1 protein expression was inhibited in si-NQO1-transfected MCF-7 and MDA-MB-231 cells, as demonstrated by western blot.



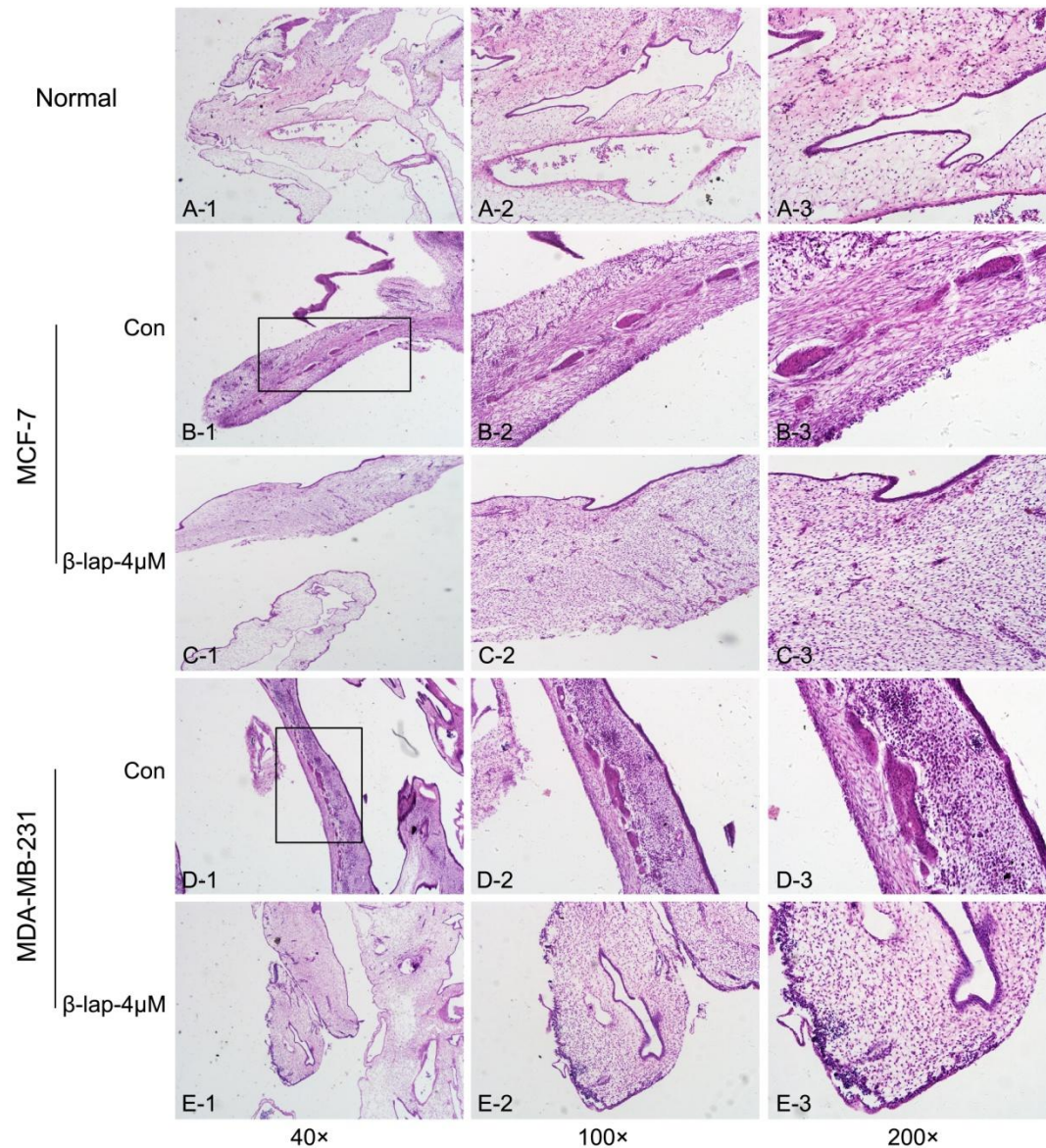
Supplementary Figure 2: β -lapachone suppressed cell viability of MCF-7 and MDA-MB-231 cells in NQO1-dependent manner. NQO1 knockdown significantly protected breast cancer cells from β -lapachone-induced cell death in MCF-7 and MDA-MB-231 cells



Supplementary Figure 3: β-lapachone suppressed the ability of cell migration on MCF-7 and MDA-MB-231 cells in NQO1-dependent manner. The inhibition on the migration of MCF-7 and MDA-MB-231 cells by β-lapachone were significantly reduced after NQO1 knocked down.



Supplementary Figure 4: β -lapachone effectively attenuate the EMT process of breast cancer cells in a mouse xenograft model. The expression levels of E-cadherin, Vimentin and snail in the tumour tissues were assayed by IHC staining (200 \times).



Supplementary Figure 5: Invasion of breast cancer cells in the chick chorioallantoic membrane (CAM) by H&E staining. (A1-A3) Normal structure of CAM layers. (B1-B3, C1-C3) MCF-7 cells which treated with β -lapachone showed less invasion into the CAM than control cells. (D1-D3, E1-E3) MDA-MB-231 cells which treated with β -lapachone showed less invasion into the CAM than control cells.